WD BLACK^2™

Fusion and Dual Drive Configuration for Mac®

Installation Guide

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Asia Pacific (non toll free)	+65.6848.6008
Japan	00 531 650442/ 0120 994 120
Australia & New Zealand	+800.2275.4932
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Middle East	0031.880062100

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1 Getting Started

This document is intended to guide you through the process of installing your new WD Black² as a Mac Fusion or dual drive (non-Fusion) configuration.

Important: To install the WD Black² dual drive, you *must* have a Mac System that supports a 9.5 mm (2.5") drive with Mavericks OSX 10.9.x.

Items needed to perform this process:

- A Phillips screwdriver with “0” tip head
- SATA to USB adapter cable (included in retail box)
- Image Backup of Mac System drive (Refer to your Apple system documentation for information on using Time Machine.)
- A blank 2 GB, or larger, USB flash drive

Download the following zip files to your local drive. These will be needed in the procedures that follow.

- *WD Black² Firmware Update for Mac*
- *WD Black² Configuration Utilities for Mac*

2 WD Black² Firmware Update Procedure

You must update the WD Black² drive firmware before setting up or configuring the drive. Updating the WD Black² drive firmware requires creating a bootable Linux USB flash drive.

Creating the Bootable Linux USB Flash Drive

CAUTION: During this procedure, all data on your flash drive will be erased. Please backup your data before you proceed.

1. Locate the WD_Black2_Firmware_Update_Utility zip file that you downloaded in the *"Getting Started" section*, and unzip it on your desktop.
2. Double-click the **WD Black2 Firmware Update Utility** file to mount it.
3. Plug in the USB flash drive. If a pop up message appears, click **Ignore**.
4. Launch the Disk Utility *(Applications > Utilities)*.
5. Select the USB flash drive in the left pane.

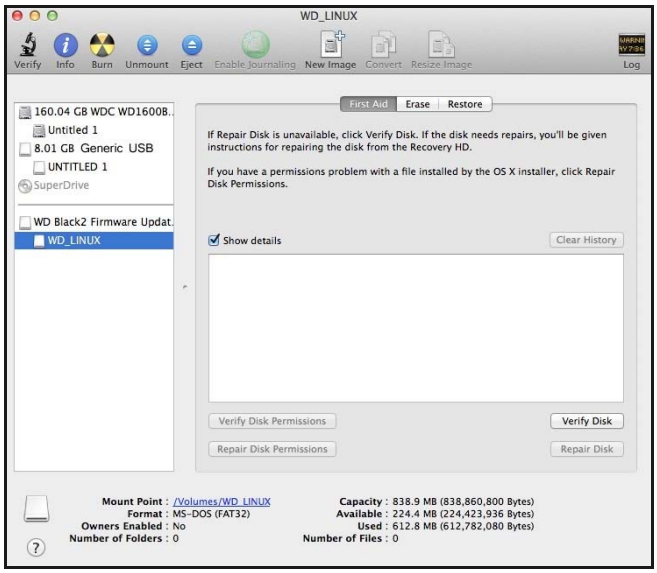
Important: Verify the correct flash drive is selected or the wrong disk will be formatted.

6. Select the **Partition** tab.
7. Under Partition Layout, select **1 Partition**.
8. Select **Options**.
9. Select **Master Boot Record**, then click **OK**. Enter a temporary name for the flash drive. This name will be overwritten in the following procedure.
10. Under Format, select **MS-DOS (FAT)**.
11. Click **Apply** to apply changes to your flash drive.
12. Click **Partition** to create the partition on the USB flash drive.

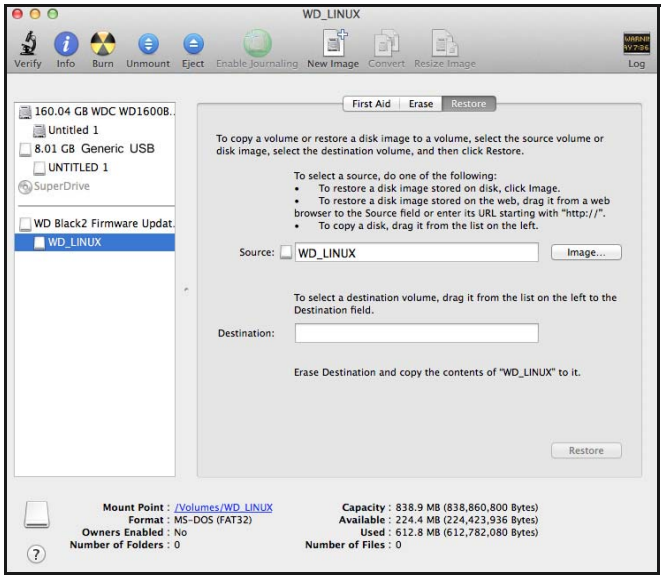
Installing the Linux ISO Image on the USB Flash Drive

1. The WD Black² Firmware Update Utility file should be mounted in Disk Utility under the divider line on the left side. Select the mounted partition **WD_LINUX**.

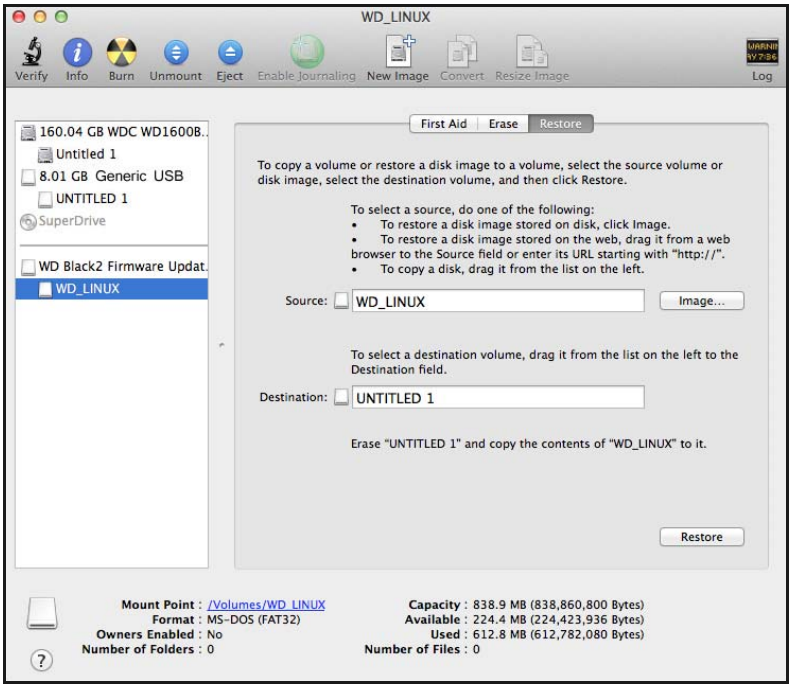
Note: If WD Black² Firmware Update Utility is not mounted in Disk Utility, you will need to double click the file to mount it, as stated in *Step 2 on page 3*.



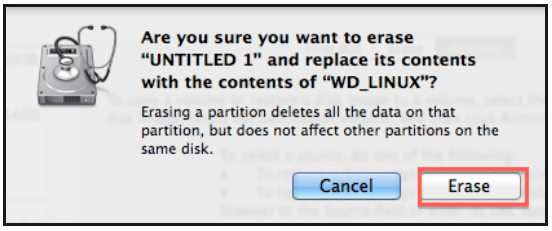
2. Select the **Restore** tab. The WD_LINUX volume name appears in the *Source* field.



3. To select a destination volume, drag the partition with the temporary name you gave the flash drive in *Step 9 on page 3,* from the list on the left to the *Destination* field.

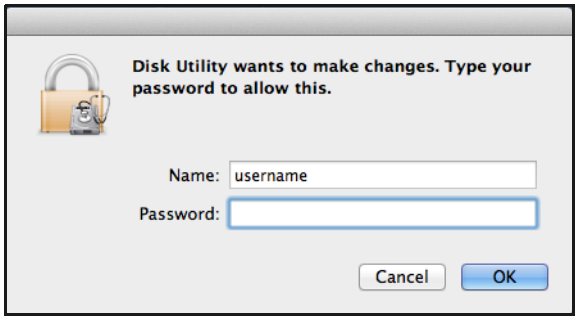


4. Click **Restore**. The following message appears.



5. Click **Erase** to confirm that you want to erase your USB flash drive. The Linux ISO is restored to the USB flash drive which is now bootable.

6. If the following screen appears prompting for a password, **Enter** the administrator password that you created for the Mac.



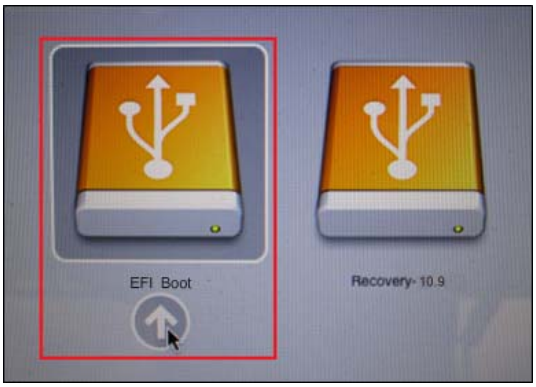
Allow approximately 4 minutes for Linux to load onto the USB flash drive. When complete, the USB bootable Linux flash drive is ready to boot to Linux and update the firmware.

Update the Drive Firmware

1. Shut down your system.
2. Remove the USB flash drive before performing step 3 of this procedure.
3. Remove the original system drive from your Mac system and replace it with the WD Black².

   Note: Refer to your Apple System documentation for hard drive removal and installation instructions.

4. Re-insert the USB flash drive in a USB port on your Mac system.
5. Press the **power** button and hold the **option** key during boot-up for the boot menu. The following screen appears.



6. Select **EFI Boot** to boot from the USB flash drive.The drive update will start automatically.

   Note: The update will take a few minutes.

7. When the update is complete, the message “Drive has been successfully updated” appears. Press any key to shut down your system.
8. Remove the USB flash drive. It is no longer needed.
9. Continue to Chapter 3, *“Setting Up the WD Black² Drive.”*

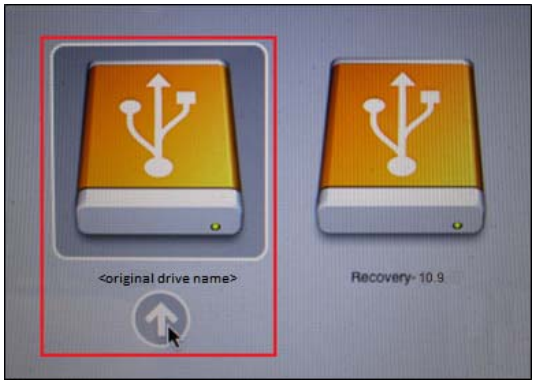
3 Setting Up the WD Black² Drive

Follow these instructions to boot the Mac system from the original system drive using the SATA to USB cable.

1. Attach the original system drive to your Mac system using the SATA to USB cable.

2. To boot from your original system drive, press the **power** button while pressing and holding the **option** key on the keyboard.

   After the Apple logo appears, the following drive icons will appear.



3. Select the drive icon labeled with your “original drive name”, to continue the boot process.

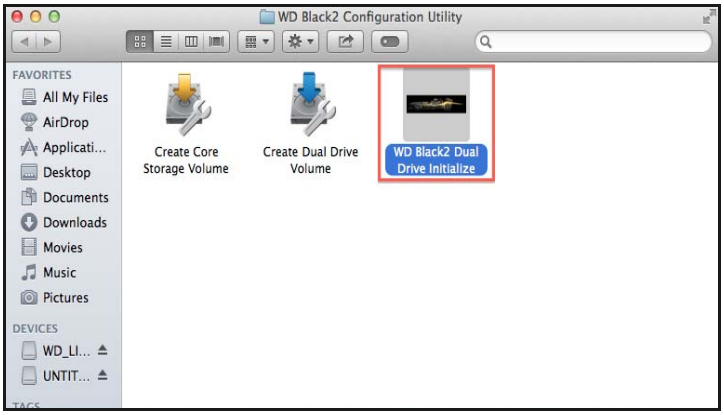
   After the boot process completes, the following dialog box may appear.

4. If the above dialog box appears, click **Ignore**. The drive will be initialized in a subsequent step.

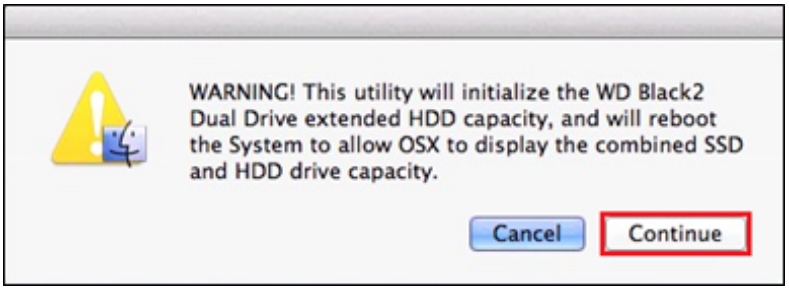
Preparing your WD Black² Drive

Before configuring the WD Black² Drive in the next section, you must first prepare the drive. This will expand the drive's capacity to 1.12 TB.

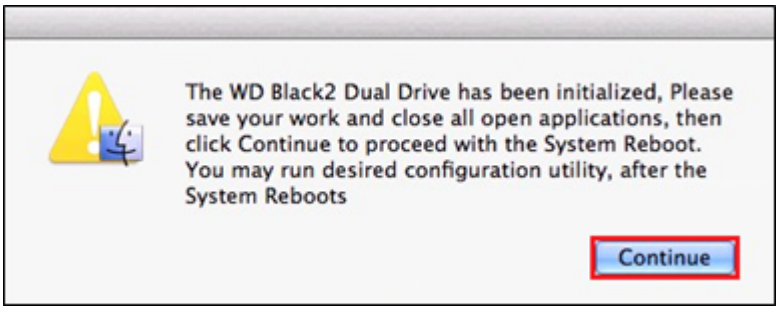
1. Locate the WD_Black2_Configuration_Utility zip file that you downloaded in the *"Getting Started" section*, and unzip it on your desktop.



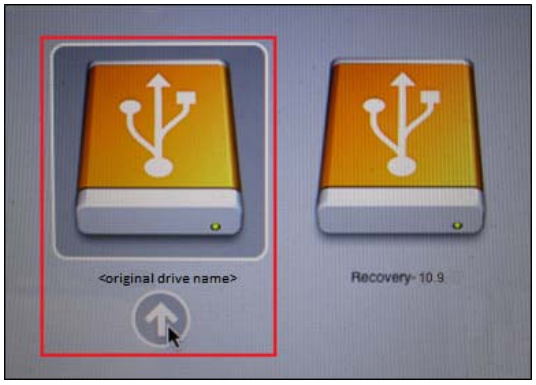
2. Select and run the **WD Black2 Dual Drive Initialize** utility to expand the extended drive capacity to 1.12 TB.



3. Read the warning message, then click **Continue** to initialize the WD Black² Dual Drive. When the Black² Dual Drive has been initialized, the following screen appears.



4. Click **Continue** to reboot, then press and hold the Mac keyboard **option** key until the boot option screen appears.



Note: The System Reboot allows the Mac OSX to display the extended combined SSD and HDD drive capacity.

5. Select the drive icon labeled with your “original drive name”, to continue the boot process.

   After the system completes the reboot process, the following dialog box may appear.

6. If the above dialog box appears, click **Ignore**. The drive will be initialized in a subsequent step.

Configuring the WD Black² Drive

How you configure a WD Black² drive for use in a Mac system depends on how much control you want over your data. You have two options.

- **Option 1: Creating a Mac Fusion Drive**
  Choose this option if you want your OS to determine which data gets placed on the HDD and SSD. To create a Fusion Drive, see *"Create a Mac Fusion Drive."*
- **Option 2: Creating a Dual Drive (Non-Fusion Drive)**
  Choose this option if you want to decide where your data goes (e.g. keep your OS on the SSD, and your data on the HDD).

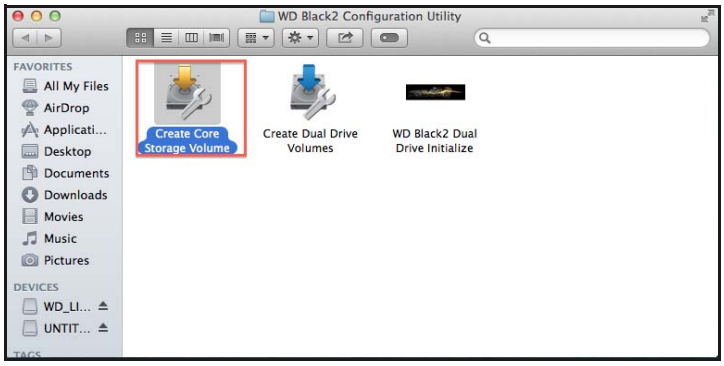
Note: Option 2 is not recommended if you have more than 120 GB on your original device. For example:
- Depending on the restore software used, you may not be able to exclude files to make everything fit in the 120 GB partition.
-You may also need to re-install some software if your original hard drive image is more than 120GB.

To create a Dual Drive, see *"Create a Dual Drive (Non-Fusion)" on page 14*.

Create a Mac Fusion Drive

To create a Fusion drive, use the Create Core Storage Volume utility.

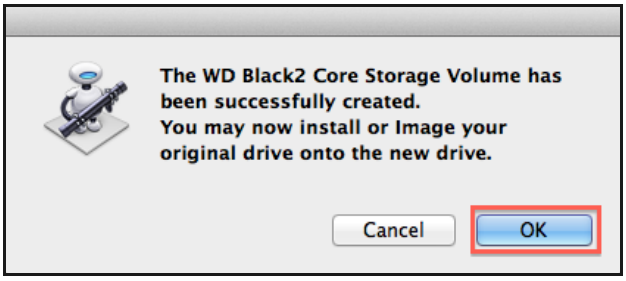
1. Locate the WD Black² Configuration Utility that you downloaded from the *"Getting Started" section*, and unzip it on your desktop.



2. Double-click the **Create Core Storage Volume** utility. A warning message appears.

3. Read the warning message and click **OK**.

   In a few minutes the following message will appear, indicating that the Fusion drive was successfully created.



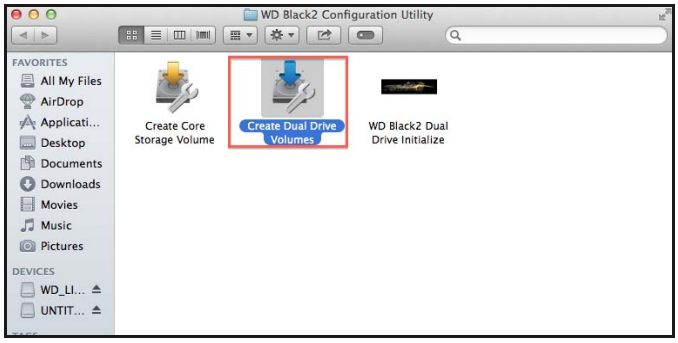
4. Click **OK**.

5. To verify your configuration, continue to the section, *"Verify Creation of a Fusion Drive or Dual Drive (Non-Fusion)."*

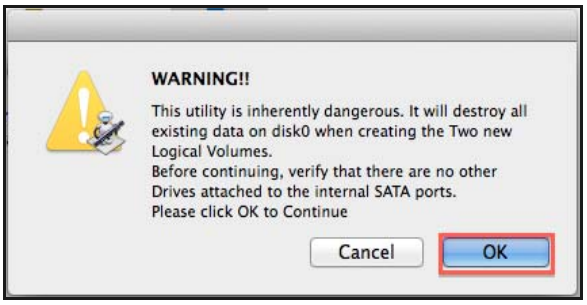
Create a Dual Drive (Non-Fusion)

To create a Dual Drive (Non-Fusion), use the Create Dual Drive Volumes utility.

1. Locate the WD Black² Configuration Utility that you downloaded from the *"Getting Started" section*, and unzip it on your desktop.

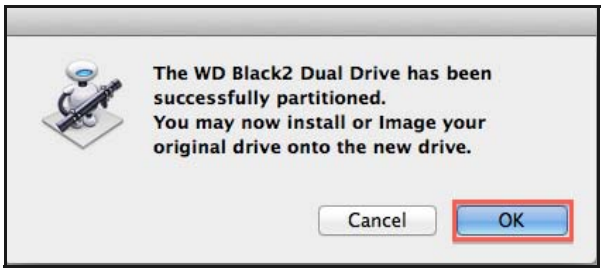


2. Double-click the **Create Dual Drive Volumes** utility. A warning message appears.



3. Read the warning message and click **OK**.

   In a few minutes the following message will appear, indicating that the Dual Drive was successfully created.



4. Click **OK**.

5. To verify your configuration, continue to the section, *"Verify Creation of a Fusion Drive or Dual Drive (Non-Fusion)."*

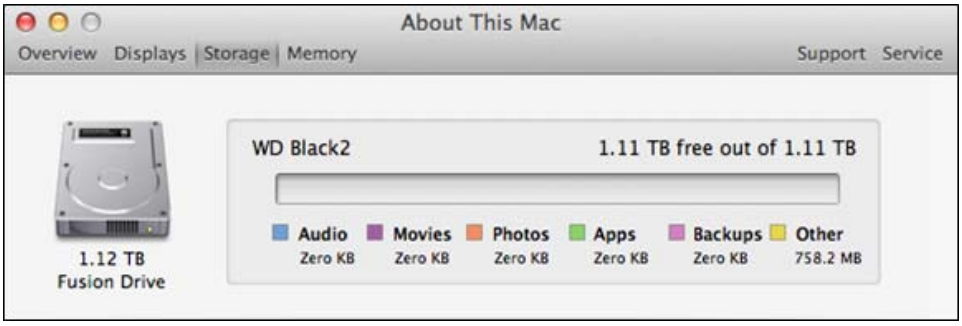
Verify Creation of a Fusion Drive or Dual Drive (Non-Fusion)

To verify that the Fusion Drive or Dual Drive (Non-Fusion) drive was created properly, do the following:

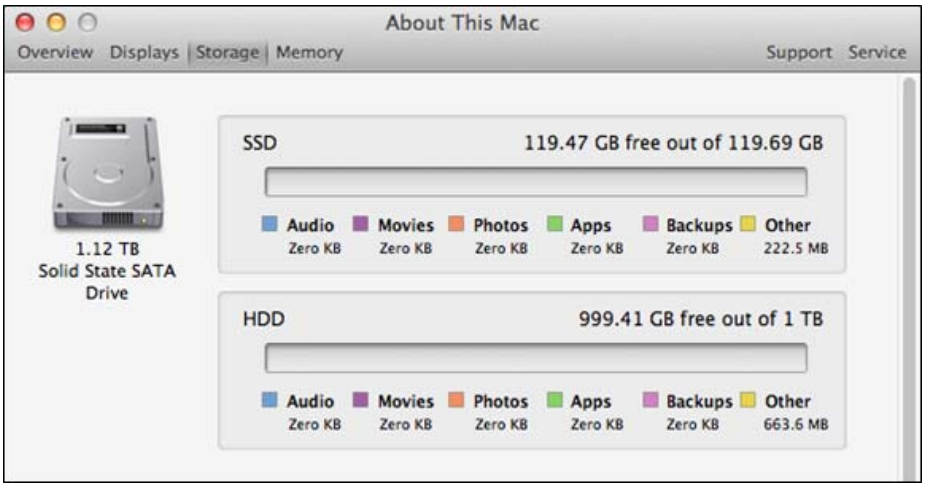
1. Click the Apple icon located on the top left corner of the screen, and select **About This Mac** from the drop-down menu.

2. Click the **More Info...** button and then select the **Storage** tab.
   If everything was created correctly, you should see the following images depending on your configuration.

Fusion Drive



Dual Drive (Non-Fusion)

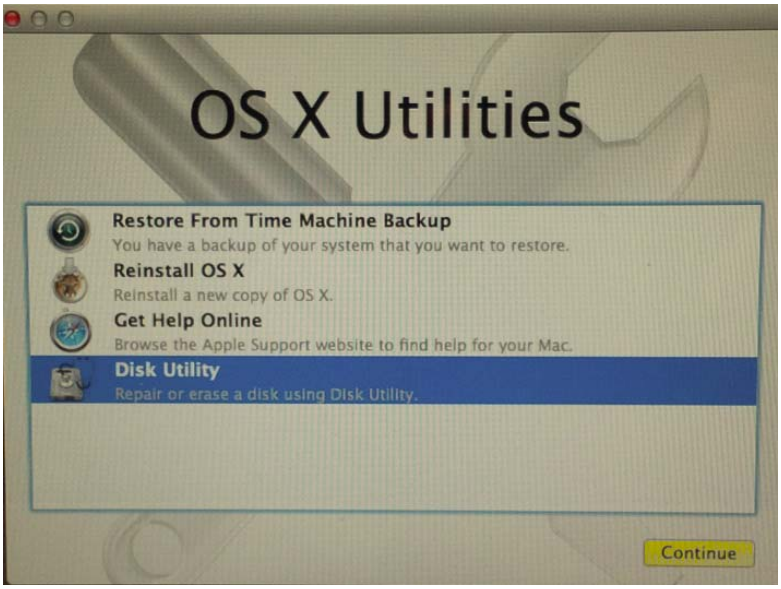


4 Restoring the Master Drive Image to the WD Black² Drive

After successfully configuring your drive, follow the instructions below to restore your original system drive image to the newly setup WD Black².

1. Shut down your Mac.
2. Press the **power** button, then press and hold the **option** key on the keyboard.

3. Select the **Recovery** drive icon. The OSX Utilities Window appears.



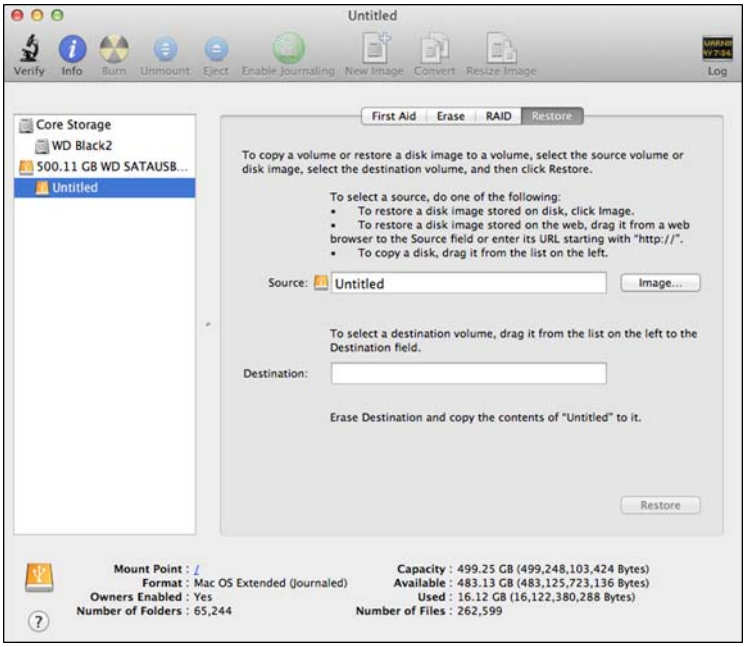
4. From the OSX Utilities Window, select the **Disk Utility** icon and click the **Continue** button.

   (a) If you are restoring a Fusion Drive, continue to *"Restoring to a Fusion Drive."*

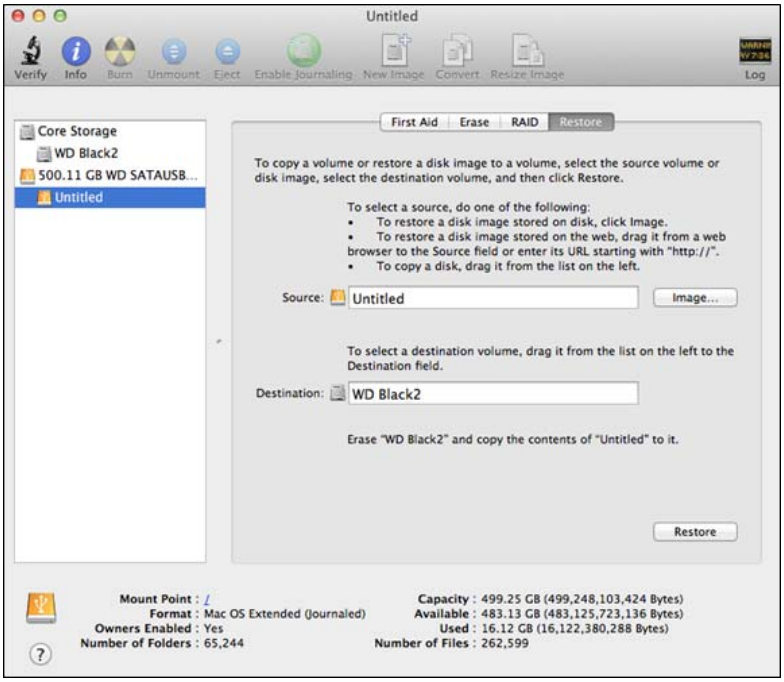
   (b) If you are restoring a Dual Drive (Non-Fusion), skip to *"Restoring to a Dual Drive (Non-Fusion)" on page 20.*

Restoring to a Fusion Drive

After clicking **Continue** in Step 4 above, the below screen appears.



1. In the left window pane, select the USB drive partition containing the Mac OSX operating system, and then click the **Restore** tab at the top of this window, next to the RAID tab. The USB partition will appear in the **Source** field.



2. In the left window pane, drag the WD Black² partition at the top of the list to the Destination field, and click the **Restore** button.

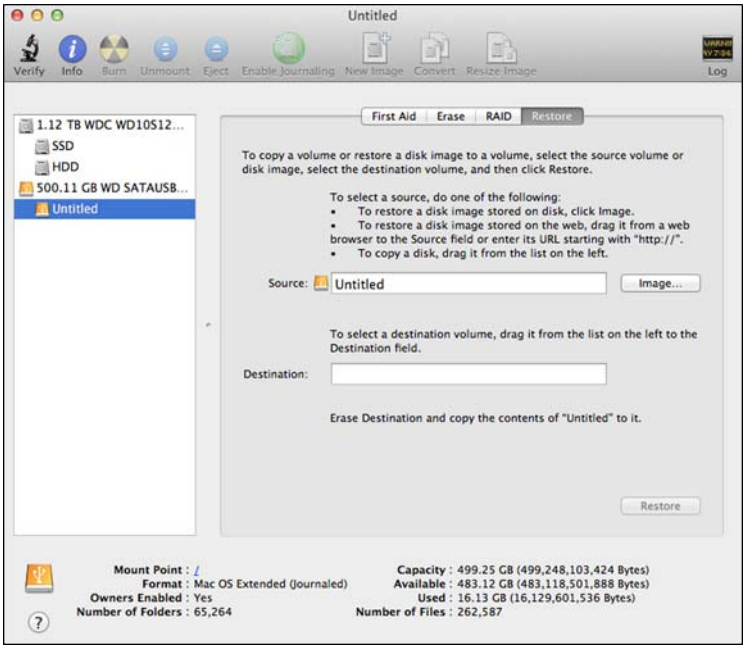
3. A warning message displays informing you that the partition will be erased. Click **OK** and wait for the restore process to finish.

4. When the restore process is finished, shut down your Mac and disconnect the original USB attached drive. You are now finished and can begin using your Mac.

Restoring to a Dual Drive (Non-Fusion)

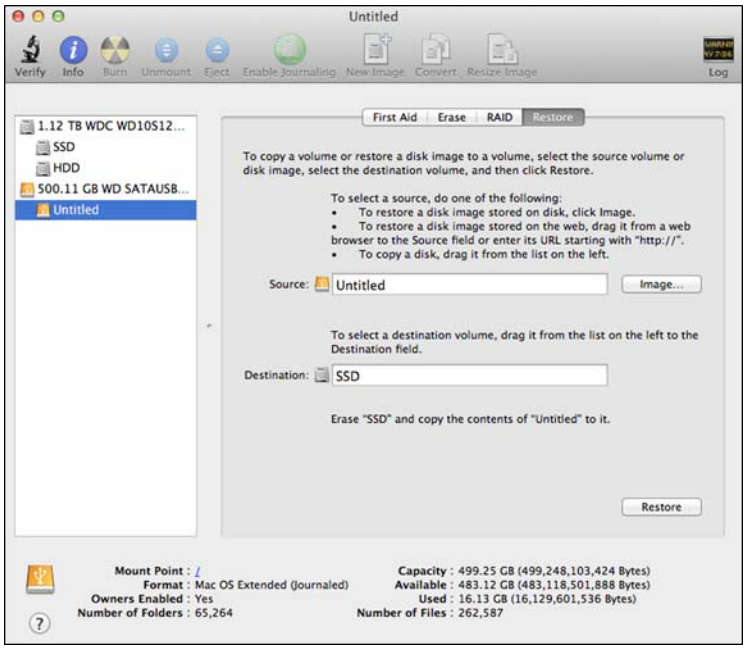
Important: To restore your original disk image to the SSD portion of the Black² dual drive in a Dual Drive (Non-Fusion) configuration, the original disk image *MUST* be smaller than 120 GB. Verify this before continuing.

After clicking **Continue** from the OSX Utilities Window in *Step 4 on page 18*, the below screen appears.



1. In the left window pane, select the USB drive partition containing the Mac OSX operating system, and then click the **Restore** tab at the top of this window, next to the RAID tab. The USB partition will appear in the **Source** field.

2. In the left window pane, drag the SSD partition at the top of the list to the Destination field, and click **Restore**.



3. A warning message displays informing you that the partition will be erased. Click **OK** and wait for the restore process to finish.

4. When the restore process is finished, shut down your Mac and disconnect the original USB attached drive. You are now finished and can begin using your Mac.

For service and literature:

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